## ABSTRACT OF THE DISCLOSURE

A packet relay device for processing a request message of a prescribed protocol on behalf of a radio terminal is provided at a first sub-network which is capable of communications in the downlink direction with respect to the radio terminal only. Then, a request message encapsulated in an IP packet is transferred from the radio terminal to the packet relay device through the second sub-network which is capable of communications in both uplink direction and the downlink direction with respect to the radio terminal, and a response message corresponding to the request message is transferred from the packet relay device to the radio terminal, so that it becomes possible for the radio terminal to execute a prescribed protocol with respect to the first sub-network.

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